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EXAMINER	
SHAPIRO, LEONID	

ART UNIT	PAPER NUMBER
2673	

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13

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/830,105	Applicant(s) CHEVET ET AL.	
	Examiner Leonid Shapiro	Art Unit 2673	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 May 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5,6 and 8-12* is/are rejected.

7)☒ Claim(s) *4,7 and 13* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 April 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the limitation of claim 10: "the cells are micromirrors of micromirror circuit" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction

of the following is required: No details of implementation of claim 10: "the cells are micromirrors of micromirror circuit" shown in the specification. Notice that operation of micro mirror circuit is different from PDP.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-3, 9, 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saegusa (US Patent No. 5,475,448) in view of Van Dijk (US Patent No. 6,424,325 B1).

As to claim 1, Saegusa teaches a method for addressing cells (cells in reference arranged at intersection of A1-Aj and S1-Sk lines, See Fig. 1) arranged as a matrix array (See Fig. 1. items 2, 10, Col. 2, Lines 48-54), each cell being situated at intersection of a line (See Fig. 1, items S-Sk) and a column (See Fig. items A1-Aj), the array having line inputs (See Fig. 1, items 13-14, Col. 2, Lines 54-62) and column inputs for displaying grey levels (See Fig. 1, items 2, 9, 11, Col. 2, Lines 34-40 and from Col. 2, Line 66 to Col. 3, Line 9) defined video words making up a digital video signal (See Col. 2, Lines 9-14) and defining an image (See Fig. 1, items 3, 8, Col. 2, Lines 4-34), the column inputs each receiving a control word for this column corresponding to the

video word (in the reference equivalent to 8-bit pixel data) (See Fig. 1, items 1, 3, Col. 2, Lines 9-12) relating , for this column, to an addressed line (See Fig. 1, items 11, 13-14, Col. 2, Lines 34-40 and 48-59), this word being composed of n bits transmitted sequentially, each sequence corresponding to a sub-scan (See Col. 2, Lines 9-14 and from Col. 2, Line 66 to Col. 3, Line 3), each bit triggering or not, according to its state, the illumination of the cell of the addressed line and of the column receiving the control word (see Fig. 1, items 2, 9, 11, Col. 2, Lines 34-40), for a time proportional to the weight of this bit in the word (See Col. 2, Lines 9-14 and from Col. 2, Line 66 to Col. 3, Line 9).

Saegusa does not show a different coding of the column control words is performed depending on whether the word relates to an even or odd line, the difference consisting in the fact that at least m successive bits of specified ranks, m between 2 and n, have different weight from one control word to the other, the sum of the weights of these bits remaining identical from one control word to the other, so as to obtain writing instants are substantially different from one line to the next.

Van Dijk teaches a different coding of the column control words is performed depending on whether the word relates to an even or odd line (See Figs. 6A, 6B, items m-1, m, 0-5, Col. 8, Lines 29-52), the difference consisting in the fact that at least m (in the reference m=n) successive bits of specified ranks, m between 2 and n, have different weight from one control word to the other (See Figs. 6A, 6B, items m-1, m, 0-5, Col. 8, Lines 29-52), the sum of the weights of these bits (for m=n) remaining identical from one control word to the other (See Fig. 6A. 6B, length of items 5+4+3+2+1+0 =

length of items 0+2+1+5+4+3) , so as to obtain writing instants are substantially different from one line to the next (See Figs. 6A, 6B, items m-1, m, 0-5, from Col. 8, Line 29 to Col. 9, Line 43).

It would have been obvious to one of ordinary skill in the art at the time of invention to incorporate teaching of Van Dijk in the Saegusa system in order to reduce artifacts (See Col. 2, Lines 24-25 in the Van Dijk reference).

As to claims 2, 12, Van Dijk teaching writing is simultaneous on two successive lines for at least the first bit of the m successive bits of a control word relating to one of the two lines (See Fig. 6A, item Tp, b5 and Fig. 6B, item Tp, b0).

As to claim 3, Saegusa teaching at least two successive lines are selected simultaneously for at least one of the bits of a specified rank, which has an identical weight from one control word to the other (See Fig. 2, items ODD ROW – W 32, EVEN ROW – W 32).

As to claim 9, Van Dijk teaches cells of plasma panel and that the selection causes the illumination of the cell (see Fig. 1, item c, Col. 1, Lines 31-60).

As to claim 11, Saegusa teaches a video processing circuit for processing the video data received (See Fig. 1, items 3-5, Col. 2, Lines 2-47), a corresponndence memory for transcoding this data, a video memory for storing transcoded data (See Fig. 1, items 7-8), the video memory being linked to column supply circuits for controlling the column addressing of the plasma panel on the basis of column control words (See Fig. 1, items 8-9, Col. 2, Lines 2-47), a control circuit for the line supply circuit linked to the video processing circuit so as to select the lines (See Fig. 1, items 13-14, Col. 2, Lines

41-48), and Van Dijk teaches a different coding of the column control words is performed the video processing and transcoding circuits depending on whether the word relates to an even or odd line (See Figs. 6A, 6B, items m-1, m, 0-5, Col. 8, Lines 29-52), the difference consisting in the fact that at least m (in the reference m=n) successive bits of specified ranks, m between 2 and n, have different weight from one control word to the other (See Figs. 6A, 6B, items m-1, m, 0-5, Col. 8, Lines 29-52), the sum of the weights of these bits (for m=n) remaining identical from one control word to the other (See Fig. 6A. 6B, length of items 5+4+3+2+1+0 = length of items 0+2+1+5+4+3) , so as to obtain writing instants are substantially different from one line to the next (See Figs. 6A, 6B, items m-1, m, 0-5).

4. Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saegusa and Van Dijk as applied to claim 1 above, and further in view of Inoue et al. (US Patent No. 5,646,646).

Saegusa and Van Dijk do not show the zones or images with strong vertical transition, the other zones utilizing sub-scans corresponding to all identical weights from one line to another.

Inoue et al. teaches the scroll image partial writing could be implemented before no change in image data (See Fig. 9D, items 112, 114, Col. 14, Lines 5-26).

It would have been obvious to one of ordinary skill in the art at the time of invention to incorporate teaching of Inoue et al. into the Van Dijk and Saegusa system in order to reduce artifacts.

5. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saegusa and Van Dijk as applied to claim 1 above, and further in view of Sakoda et al. (US Patent No. 5,559,954).

Saegusa and Van Dijk do not show value of m (number of bits) is dependent on the vertical resolution.

Sakoda et al. teaches number of bits is dependent on the vertical resolution (See Fig. 4c, Col. 8, Lines 61-68).

It would have been obvious to one of ordinary skill in the art at the time of invention to incorporate teaching of Sakoda et al. into the Van Dijk and Saegusa system in order to reduce artifacts.

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saegusa and Van Dijk as applied to claim 1 above, and further in view of Nelson (US Patent No. 5,771,060).

Saegusa and Van Dijk do not show cells are micromirrors of a micromirror circuit.

Nelson teaches cells are micromirrors of a micromirror circuit (See Fig. 1a, item 1 Col. 6, Lines 31-51).

It would have been obvious to one of ordinary skill in the art at the time of invention to incorporate teaching of Nelson into the Van Dijk and Saegusa system in order to increase the range of applications.

Response to Amendment

7. Applicant's arguments filed on 05-12-04 with respect to claims 1-13 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

8. Claim 4, 7 and 13 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is an examiner's statement of reasons for allowance:

Relative to claim 4 the major difference between the teaching of the prior art of record (US Patent No. 5,475,448, Saegusa and US Patent No. 6,424,325 B1, Van Dijk) and the instant invention is that the said prior art **does not teach** at least one of the bits of specified rank, which has an identical weight from one control word to another, is used to code a partial value of luminance common to two successive lines and in that writing is simultaneous on these lines for this bit of the control word relating to one of the two lines.

Relative to claim 7 the major difference between the teaching of the prior art of record (US Patent No. 5,475,448, Saegusa and US Patent No. 6,424,325 B1, Van Dijk) and the instant invention is that the said prior art **does not teach** the switchover from the first addressing method comprising n sub-scans to a second addressing method comprising a larger number of sub-scans and for which the column control words have a larger number of bits having identical weights from one line to the other is performed

by replacing the selection of a line I while writing a bit of different weight on the line I, in the first method, by selection of the line I and of the immediately preceding or immediately following line for a simultaneous writing on these two lines, in the second method.

Relative to claim 13 the major difference between the teaching of the prior art of record (US Patent No. 5,475,448, Saegusa and US Patent No. 6,424,325 B1, Van Dijk) and the instant invention is that the said prior art **does not teach** selection circuit receving the video data so as to select a coding of the column control words corresponding to an addressing according to n sub-scans or to an addressing corresponding to a larger number of sub-scans, as a function of the variations in luminance from one line to the other in an image or an image part.

Telephone inquire

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonid Shapiro whose telephone number is 703-305-5661. The examiner can normally be reached on 8 a.m. to 5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on 703-305-4938. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ls 07-21-04

VIJAY SHANKAR
PRIMARY EXAMINER